

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville 2960 Foster Creighton Drive Nashville, TN 37204 Tel: (615)726-0177

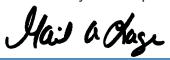
TestAmerica Job ID: 490-39310-1

Client Project/Site: Everett Terminal - Outfall 01 A

#### For:

Exxon Global Remed. Grp 52 Beacham Street Everett, Massachusetts 02149

Attn: Mallory Stanhope



Authorized for release by: 11/5/2013 5:48:39 PM

Gail Lage, Senior Project Manager (615)301-5741 gail.lage@testamericainc.com

·····LINKS ······

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Exxon Global Remed. Grp Project/Site: Everett Terminal - Outfall 01 A TestAmerica Job ID: 490-39310-1

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# **Sample Summary**

Client: Exxon Global Remed. Grp

Project/Site: Everett Terminal - Outfall 01 A

TestAmerica Job ID: 490-39310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-39310-1	Outfall 01 A-TSS - 1	Wastewater	10/31/13 18:15	11/02/13 08:30
490-39310-4	Outfall 01 A	Wastewater	10/31/13 18:15	11/02/13 08:30

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#### **Case Narrative**

Client: Exxon Global Remed. Grp

Project/Site: Everett Terminal - Outfall 01 A

TestAmerica Job ID: 490-39310-1

Job ID: 490-39310-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-39310-1

#### Receipt

The samples were received on 11/2/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3° C.

#### **Organic Prep**

Method(s) 1664A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 119214 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

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## **Definitions/Glossary**

Client: Exxon Global Remed. Grp

Project/Site: Everett Terminal - Outfall 01 A

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 490-39310-1

#### **Qualifiers**

#### **General Chemistry**

Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits

### **Glossary**

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio

# **Client Sample Results**

Client: Exxon Global Remed. Grp

Project/Site: Everett Terminal - Outfall 01 A

TestAmerica Job ID: 490-39310-1

Client Sample ID: Outfall 01 A-TSS - 1

Lab Sample ID: 490-39310-1 Date Collected: 10/31/13 18:15

**Matrix: Wastewater** 

Date Received: 11/02/13 08:30

General Chemistry								
Analyte	Result Qualifie	r RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	8.80	2.00	1.40	mg/L	_		11/02/13 17:38	1

# **Client Sample Results**

Client: Exxon Global Remed. Grp

Project/Site: Everett Terminal - Outfall 01 A

TestAmerica Job ID: 490-39310-1

Lab Sample ID: 490-39310-4

**Matrix: Wastewater** 

Client Sample ID: Outfall 01 A
Date Collected: 10/31/13 18:15

Date Received: 11/02/13 08:30

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease (HEM)	<1.45		4.13	1.45	mg/L		11/04/13 13:51	11/04/13 13:51	1

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Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Prep Batch: 119211** 

Prep Type: Total/NA

**Prep Batch: 119211** 

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Method Blank

**Client Sample ID: Lab Control Sample** 

Project/Site: Everett Terminal - Outfall 01 A

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: LB 490-119211/2-A LB

**Matrix: Water** 

Analysis Batch: 119214

Prep Type: Total/NA **Prep Batch: 119211** 

LB LB

Result Qualifier RL MDL Unit D Prepared Dil Fac Analyte Analyzed 4.00 11/04/13 13:51 11/04/13 13:51 Oil & Grease (HEM) <1.40 1.40 mg/L

Lab Sample ID: MB 490-119211/1-A

**Matrix: Water** 

Analysis Batch: 119214

мв мв

Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac Oil & Grease (HEM) <1.40 4.00 1.40 mg/L 11/04/13 13:51 11/04/13 13:51

Lab Sample ID: LCS 490-119211/3-A

**Matrix: Water** 

Analysis Batch: 119214

Spike LCS LCS %Rec. Added Result Qualifier Unit D %Rec Limits Oil & Grease (HEM) 41.7 39.27 78 - 114 mg/L

Lab Sample ID: LCSD 490-119211/4-A

**Matrix: Water** 

Analysis Batch: 119214

**Prep Batch: 119211** LCSD LCSD Spike %Rec. RPD Added Analyte Result Qualifier Unit %Rec Limits Limit Oil & Grease (HEM) 41.7 36 77 mg/L 88 78 - 114

Lab Sample ID: 490-38784-B-1-A MS

**Matrix: Water** 

Analysis Batch: 119214

**Prep Batch: 119211** Sample Sample Spike MS MS %Rec. Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Oil & Grease (HEM) 46.5 39.53 F 4.55 mg/L 78 \_ 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 490-118967/1

**Matrix: Water** 

**Matrix: Water** 

Analysis Batch: 118967

мв мв

RLMDL Unit Dil Fac Analyte Result Qualifier Prepared Analyzed 1.00 **Total Suspended Solids** <0.700 0.700 mg/L 11/02/13 17:38

Lab Sample ID: LCS 490-118967/2

Analysis Batch: 118967

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Total Suspended Solids 101 101.0 mg/L 100 90 - 110

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## **QC Sample Results**

Client: Exxon Global Remed. Grp

Analyte

Total Suspended Solids

Project/Site: Everett Terminal - Outfall 01 A

TestAmerica Job ID: 490-39310-1

### Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Sample Sample

163

Result Qualifier

Lab Sample ID: LCSD 490-118967/3 Matrix: Water				Clie	nt San	ple ID:	Lab Contro Prep T	l Sampl ype: To	
Analysis Batch: 118967									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Total Suspended Solids	101	105.1		mg/L		104	90 - 110	4	20
Lab Sample ID: 490-39120-C-2 DU						Cli	ent Sample	ID: Dup	olicate
Matrix: Water							Prep T	ype: To	tal/NA
Analysis Batch: 118967									

DU DU

161.0

Result Qualifier

Unit

mg/L

Lab Sample ID: 490-39258-C-1 DU	Client Sample ID: Duplicate
Matrix: Water	Prep Type: Total/NA

Analysis Batch: 118967									
	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Total Suspended Solids	34.8		 33.00	-	mg/L		_	5	20

11/5/2013

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RPD

Limit

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**RPD** 

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# **QC Association Summary**

Client: Exxon Global Remed. Grp Project/Site: Everett Terminal - Outfall 01 A TestAmerica Job ID: 490-39310-1

### **General Chemistry**

### Analysis Batch: 118967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-39120-C-2 DU	Duplicate	Total/NA	Water	SM 2540D	
490-39258-C-1 DU	Duplicate	Total/NA	Water	SM 2540D	
490-39310-1	Outfall 01 A-TSS - 1	Total/NA	Wastewater	SM 2540D	
LCS 490-118967/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 490-118967/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 490-118967/1	Method Blank	Total/NA	Water	SM 2540D	

#### **Prep Batch: 119211**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
490-38784-B-1-A MS	Matrix Spike	Total/NA	Water	1664A	
490-39310-4	Outfall 01 A	Total/NA	Wastewater	1664A	
LB 490-119211/2-A LB	Method Blank	Total/NA	Water	1664A	
LCS 490-119211/3-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 490-119211/4-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 490-119211/1-A	Method Blank	Total/NA	Water	1664A	

#### Analysis Batch: 119214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-38784-B-1-A MS	Matrix Spike	Total/NA	Water	1664A	119211
490-39310-4	Outfall 01 A	Total/NA	Wastewater	1664A	119211
LB 490-119211/2-A LB	Method Blank	Total/NA	Water	1664A	119211
LCS 490-119211/3-A	Lab Control Sample	Total/NA	Water	1664A	119211
LCSD 490-119211/4-A	Lab Control Sample Dup	Total/NA	Water	1664A	119211
MB 490-119211/1-A	Method Blank	Total/NA	Water	1664A	119211

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#### **Lab Chronicle**

Client: Exxon Global Remed. Grp

Project/Site: Everett Terminal - Outfall 01 A

Client Sample ID: Outfall 01 A-TSS - 1

TestAmerica Job ID: 490-39310-1

Lab Sample ID: 490-39310-1

Matrix: Wastewater

Date Collected: 10/31/13 18:15 Date Received: 11/02/13 08:30

Batch Dilution Batch Batch Prepared Prep Type Method Factor Number Type Run or Analyzed Analyst Lab Total/NA Analysis SM 2540D 118967 11/02/13 17:38 PHB TAL NSH

Client Sample ID: Outfall 01 A Lab Sample ID: 490-39310-4

Date Collected: 10/31/13 18:15 Matrix: Wastewater

Date Received: 11/02/13 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			119211	11/04/13 13:51	BAD	TAL NSH
Total/NA	Analysis	1664A		1	119214	11/04/13 13:51	BAD	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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## **Method Summary**

Client: Exxon Global Remed. Grp

Project/Site: Everett Terminal - Outfall 01 A

TestAmerica Job ID: 490-39310-1

Method	Method Description	Protocol	Laboratory
1664A	HEM and SGT-HEM	1664A	TAL NSH
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL NSH

#### Protocol References:

1664A = EPA-821-98-002

SM = "Standard Methods For The Examination Of Water And Wastewater",

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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TestAmerica Job ID: 490-39310-1

Client: Exxon Global Remed. Grp Project/Site: Everett Terminal - Outfall 01 A

#### Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-14
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-14
Ilinois	NELAP	5	200010	12-09-13
owa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-14
Kentucky (UST)	State Program	4	19	06-30-14
_ouisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-14
Montana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-14
Ohio VAP	State Program	5	CL0033	10-16-15
Oklahoma	State Program	6	9412	08-31-14
Oregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-14
Tennessee	State Program	4	2008	02-23-14
Гехаs	NELAP	6	T104704077-09-TX	08-31-14
JSDA	Federal		S-48469	10-30-16
Jtah	NELAP	8	TN00032	07-31-14
/irginia	NELAP	3	460152	06-14-14
	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14
Visconsin	State Program	5	998020430	08-31-14
Wyoming (UST)	A2LA		453.07	12-31-13

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TestAmerica Nashville

 $<sup>^{\</sup>star}$  Expired certification is currently pending renewal and is considered valid.



### **COOLER RECEIPT FORM**



Cooler Received/Opened On 11/2/2013 @ 0830	
1. Tracking #(last 4 digits, FedEx)	
Courier: FedEx IR Gun ID 94660220	
2. Temperature of rep. sample or temp blank when opened: 1.3Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen?	YES NONA
4. Were custody seals on outside of cooler?	ESNONA
If yes, how many and where: (1) Frowt	
5. Were the seals intact, signed, and dated correctly?	ESNONA
6. Were custody papers inside cooler?	MSNONA
certify that I opened the cooler and answered questions 1-6 (intial)	MDM
7. Were custody seals on containers: YES and Intact	YESNO.
Were these signed and dated correctly?	YESNO
8. Packing mat'l used? Kubblewrap Plastic bag Peanuts Vermiculite Foam Insert Papel	r Other None
9. Cooling process: [Ge   Ice-pack   Ice (direct contact)   Dry ice	Other None
10. Did all containers arrive in good condition (unbroken)?	ÆŜNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	ÆSNONA
12. Did all container labels and tags agree with custody papers?	ESNONA
13a. Were VOA vials received?	YES(O).NA
b. Was there any observable headspace present in any VOA vial?	YESNO. NA
14. Was there a Trip Blank in this cooler? YESNO. NA If multiple coolers, sequence	ce #
certify that I unloaded the cooler and answered questions 7-14 (intial)	mam
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNO:NA
b. Did the bottle labels indicate that the correct preservatives were used	(ES)NONA
16. Was residual chlorine present?	YESNO
certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	mbun
17. Were custody papers properly filled out (ink, signed, etc)?	(ES)NONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	ESNONA
20. Was sufficient amount of sample sent in each container?	ES)NONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	man
certify that I attached a label with the unique LIMS number to each container (intial)	MDM
21. Were there Non-Conformance issues at login? YES 100 Was a NCM generated? YES.	VO.#

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Date of Report sax Results (yes or no) zz Other TAT request (in Bus, Days \* (eluberlo&-eyq) TAT H&U. RC Report To: sperry@triumvirate.com; damian.a.guzman@exxonmobil.com Flow (MGD): Ħ 1 L Plastic 1 L Plastic 1 L Plastic 1 L Amber 7 3 Ŧ consultant to notify the TestAmerica Project Manager by phone or fax that a rush sample will be submitted. Invoice To: (ExxonMobil PM unless otherwise indicated) If will be the responsibility of ExxonMobil or its Temperature Upon Receipt: 6.3 Sample Containers Intact? Date VOCs Free of Headspace? OC Deliverables (please círcle one) Analyze For Level 3 PROJECT #: NPDES Permit MA0000833 Laboratory Comments: TA Project Manager. Level 2 Site Address SAME TA Account #: Facility ID # City, State, Zip Regulatory District (CA) 118 Grease - EPA 1664 Monthly Time Lime 888 HOLD for analysis **HOLD** for analysis C88 - 8M 2640D Ofher (specify): 11.118 Sindge Date 11-2-13 Drinking Water × Consultant Project Mgr: Triumvirate -Darrell Interess (Call Visoth at (617) 799 - 4357 for sample related questions) Fax No.: 617-381-2954 H<sub>2</sub>SO<sub>4</sub> Plastic (Yellow Label) MW X TAN Sodium Bisulfate PLEASE SEE ATTACHED ML REQUIREMENTS Field Filtered Composite Grab × × 11:11 Time Consultant Name: ExxonMobil Everett Terminal No. of Containers Shipped ExxonMobil Project Mgr: Mr. Damian Guzman 18115 18115 Address: 52 Beacham Street City/State/Zip: Everett, MA 02149 Time Sampled 61-1-13 Consultant Telephone Number: 617-381-2802 Date 10-31-13 10-21-13 10-31-13 10:31-13 Date Sampled Sampler Name: (Print) Sampler Signature; Laboratory case narative to NELAC Institute October Monthly 1st Rain Comments/Special Instructions: Outfall 01 A-TSS - 3 Poutfall 01 A-TSS - 2 Qutfall 01 A-TSS - 1 Sample ID or Field ID standard protocol, Outfall 01 A **Relinquished** by Page

Loc: 490 **39310** 

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Toll Free: 800-765-0980 Fax: 615-726-3404

2960 Foster Creighton

Nashville Division

THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN 37204

**TestAmerica** 

Phone: 615-726-0177

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## **Login Sample Receipt Checklist**

Client: Exxon Global Remed. Grp Job Number: 490-39310-1

Login Number: 39310 List Source: TestAmerica Nashville

List Number: 1

Creator: McBride, Mike

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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